AMENDMENTS TO THE CLAIMS

(The following includes a complete listing of all claims with their current status indicated. Additional language is underscored; deletions are stricken through.)

No claims have been amended in this paper.

1. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode; oxidizing an upper surface of said non-oxide electrode using an O_3 gas plasma; depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode; and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

2. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O_2, O_3, H_2O, and N_2O.

3. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.

4. (Original) A method as claimed in claim 1 wherein said non-oxide electrode is selected from the group consisting of TiN, TaN, WN, and W.

5. (Original) A method as claimed in claim 1 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$.

6. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

Claim 7 – Cancelled.

8. (Previously Amended) A method as claimed in claim 1 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

9. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode using an O_3 gas plasma, depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

10. (Original) A method as claimed in claim 9 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$.

11. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O_2, O_3, H_2O, and N_2O.

12. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.

13. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

Claim 14 – Cancelled.

15. (Previously Amended) A method as claimed in claim 9 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

16. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode using an O_3 gas plasma, depositing a high dielectric constant oxide dielectric material selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

17. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O_2, O_3, H_2O, and N_2O.

18. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.

19. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

Claim 20 – Cancelled.

21. (Previously Amended) A method as claimed in claim 16 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

22. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, in a deposition chamber oxidizing an upper surface of said non-oxide electrode, in the same deposition chamber depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

23. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode at a temperature in the range of from about 250° to about 700° C in an atmosphere containing a gas selected from the group consisting of O_2, O_3, H_2O, and N_2O, depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

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24. (Original) A method as claimed in claim 23 wherein said non-oxide electrode is selected from the group consisting of TiN, TaN, WN, and W.

25. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of O_2, O_3, H_2O, and N_2O, depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

26. (Original) A method as claimed in claim 25 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 500°C.

27. (Original) The method of claim 25 wherein said non-oxide electrode is selected from TiN, TaN, WN, and W.

28. (Original) A method as claimed in claim 25 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$.

29. (Original) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of O_2, O_3, H_2O, and N_2O, depositing a high dielectric constant oxide dielectric material selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

Claims 30-37 Canceled.

38. (Previously Amended) A method of forming a DRAM cell comprising providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode, depositing a layer of a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, depositing an upper layer electrode on said layer of said high dielectric constant oxide dielectric material, providing a field effect transistor having a pair of source/drain regions, electrically connecting one of said source/drain regions with said conductive oxide electrode and electrically connecting the other of said source/drain regions with a bit line.

39. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, in a deposition chamber oxidizing an upper surface of said non-oxide electrode in an

atmosphere containing a gas plasma generated from a gas selected from the group consisting of O_2, O_3, H_2O, and N_2O, in the same deposition chamber depositing a high dielectric constant oxide dielectric material selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

40. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode, in a deposition chamber oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of O_2, O_3, H_2O, and N_2O, in the same deposition chamber depositing a high dielectric constant dielectric material on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

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41. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, in a deposition chamber oxidizing an upper surface of said non-oxide electrode, in the same deposition chamber depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

42. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode; oxidizing an upper surface of said non-oxide electrode; depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode; and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

43. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode, depositing a high dielectric

constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

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44. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode, depositing a high dielectric constant oxide dielectric material selected from the group consisting of Al_2O_3, Ta_2O_5 and $Ba_xSr_{(1-x)}TiO_3$ directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.